
Archival Featured Article

Are Music Perceptions Biased by Priming Effects of Journalism?

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ABSTRACT - A study was undertaken to determine whether expressed journalist perceptions of emotion would bias the perception of listeners. A sample of 142 undergraduate psychology students from two different colleges listened to a recorded jazz saxophone improvisation and indicated their perception of emotion on a 7-point scale of friendly – angry. Half the participants preceded their listening by reading that a journalist had reviewed the music as angry. Perceptions of anger in the music were significantly higher among those listeners than among listeners who had not read the journalist's remark.

Keywords:

Emotion perception;
Music perception; Media
influence; Bias;
Expectation effects

Introduction

Concern has been raised that journalist perceptions of emotion that were presented as facts about the music would bias the perception of listeners who had no preconceptions regarding the music or the performer (Gridley, 1978). This motivated a series of surveys by Gridley (2009). He first determined how typical were the perceptions of anger in the saxophone improvisations of John Coltrane that had been reported by two journalists (Gold, 1958; Goldberg, 1965). He found that the most widely publicized perceptions were atypical. Then Gridley (2010) and Gridley and Hoff (2007) found a diversity of emotion perceptions in listeners who heard a recording of the same musical performance that a journalist had termed "angry," and the majority of responses were on the friendly side of an "angry-friendly" continuum. Gridley (2010) and Gridley and Hoff (2007) also found that listener personality significantly correlated with perceptions of emotion in the music. The present study was undertaken to determine whether concern about the biasing influence of journalism was warranted.

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The effect of journalist reviews may be continuous with the concept of priming (Bargh, Chen & Burrows, 1996; Higgins, 1996). Through priming, we can be unconsciously influenced by our experiences in such a way that previously encountered stimuli and concepts become more readily available. An encounter with a stimulus - such as a word- may prime our action or perception because it constitutes unconscious alterations in our subsequent response to that stimulus or a related one.

Kenrick, Neuberg, and Cialdini (2007) explained priming by recalling the need to prepare a lawnmower motor for ignition by "priming" it--"pumping a little gas into it before pulling the ignition cord." They mentioned that "knowledge is better prepared to do its job when it, too, has been primed--when it has first been made ready, or accessible, for use." Baron, Branscombe, and Byrne (2008) supplied a salient example of priming within their discussion of "Schemas Which Guide Our Thought: ... suppose you have just seen a violent movie. Now, you are looking for a parking spot, but another driver turns in front of you and takes it first. Because you have just had an experience that activated your schema for aggressive actions, you may, in fact, be more likely to perceive the driver taking the parking spot as aggressive, more so than if you had seen a comedy film instead."

The hypothesis of this study was that exposing listeners to a journalist's perception of anger in music would increase the likelihood that listeners would perceive anger in that music.

Method

Participants

Participants include 142 undergraduate students from two colleges. Specifically, 44 were students enrolled in courses in statistics and research methods at one college and 88 were enrolled in introductory psychology at another college.

Instruments

A "Perception of Emotion Survey" (Appendix A) was prepared, one line of which constituted a 7-point continuum in which position "1" was "friendly" and position "7" was "angry." Though "friendly" is not commonly listed as an emotion or considered an antonym for "angry," for this study it constituted something antithetical to angry, as a hostile attitude opposes a friendly attitude. Other lines on the form contained continua for tense-relaxed, happy-sad, and lively-not lively. The form asked respondents to use anchored responses to "Circle the number that best indicates your perception of emotion in the saxophone solo you heard on the recording: friendly 1 2 3 4 5 6 7 angry." This was the same response sheet that had been used for the other studies that led to the present investigation (Gridley, 2010, 2009; Gridley & Hoff, 2007).

Stimuli

On a classroom sound system, participants heard a recording of the 2' 42" solo improvisation by John Coltrane from the Miles Davis Sextet performance of "Two Bass Hit" at the 1958 Newport Jazz Festival (Davis, 1958), which constituted the performance of "an angry young tenor" according to the journalist who reviewed the concert (Gold, 1958, August, p. 16).

Procedure

During the first five minutes of regularly scheduled class periods, students were told that they were going to hear some music as part of a study on perception. They heard the same music and completed the Perception of Emotion Survey, in the manner that had been used in the previous studies by Gridley (2010; 2009) and Gridley and Hoff (2007). The procedure differed in one way from that which was used in the previous studies. The Perception of Emotion Survey given to these participants was covered with a face sheet, and participants were told "Please do not go to the next page until you have heard the music." The

face sheet on one-half of the response sheets (Appendix B) primed the listeners by stating, “You are going to hear a recording of a concert at which a journalist reviewed the music by writing that the tenor saxophone soloist was an ‘angry young tenor.’” The face sheet on the other half of the response sheets (Appendix C) did not prime the listeners because it merely stated, “You are going to hear a recording of a concert at which a tenor saxophonist was the soloist.” Distribution of response sheets in the classroom was arranged so that every other student received a cover sheet that termed the upcoming music as performed by an “angry young tenor.” Participants then heard the 2' 42" solo improvisation by John Coltrane from the Miles Davis Sextet performance of “Two Bass Hit” at the 1958 Newport Jazz Festival. All participants read their respective face sheets at the same time and completed the response sheet immediately after they heard the music.

Results

Among participants at the first college, the average emotion perception indicated on the 7-point friendly-angry continuum for unprimed listeners was 3.04 ($SD = 1.37$), whereas the average emotion perception of listeners who had read the “angry young tenor” remark before hearing the music was 3.85 ($SD = 1.40$), which is significantly closer to the continuum's angry pole ($t(52) = 2.15, p = .036$; two-tailed; $d = .587$). Among participants at the second college, essentially the same results were found, as the average emotion perception indicated on the friendly-angry continuum by unprimed listeners was 3.13 ($SD = 1.24$), whereas the average emotion perception indicated by primed listeners was 3.93 ($SD = 1.3$), which is significantly closer to the continuum's angry pole ($t(86) = 2.92, p = .004$; two-tailed; $d = .624$).

Discussion

The design of the current study may have primed participants to perceive an ambiguous auditory stimulus as angry, following the earlier use of the same word in the one-sentence description that preceded the musical excerpt. The self-reported emotion perceptions of participants in these two samples suggest that journalists' remarks can have a biasing effect by priming the perceptions of the listener. Therefore, concern about the biasing effect of journalism is warranted. Our findings provide a note to listeners cautioning them to postpone reading about music before listening to it and to form their own opinions before learning those of others.

More confidence in this conclusion would be warranted after the study is replicated with other musical selections and other emotions, for instance, collecting primed and unprimed perceptions of a piano improvisation along a happy-sad continuum or attempting to prime perceptions of sadness in listeners who hear the same saxophone performance that was used in the present study. The extent of influence exerted by a journalist's remarks might be further indicated by investigating perceptions of emotion in a selection whose construction is less ambiguous than the construction of the highly abstract solo that was used in the present study.

To consider why listeners would be influenced by the remarks of a journalist about an unfamiliar selection, we might tender the possibility that they are seeking information to clarify meaning about the ambiguous stimuli. For this reason, perhaps they would be swayed by exposure to the perception of another listener who holds the position of an authority. In our studies, however, participants were not queried after they indicated their perceptions. Therefore, we do not know what forces were active in their choices. Future studies, however, could incorporate such debriefing.

To learn why listeners would be influenced by the remarks of a journalist about Coltrane's solo on “Two Bass Hit,” we might investigate aspects of the music's style that could make it salient for perception of anger. For instance, rough timbres, fast tempo, and high-pitched, dissonant melodies and harmonies have been shown to elicit perceptions of anger (Juslin & Laukka, 2003), and the Coltrane solo in the present

study can be characterized by all these descriptions. For this reason, a replication of the study might be informative if its stimulus were a solo improvisation by saxophonists Stan Getz or Kenny G, in place of Coltrane. The timbre of Getz, for example, has been perceived as soft, whereas the timbre of Coltrane has been perceived as raspy, sharp, and hard (Gridley, 1987).

We may also wonder what differentiates the listeners for whom priming was least effective from those who were most persuaded to perceive anger after being primed. Individual differences along several dimensions might begin to account for the extent of effectiveness for the priming. The dimensions most likely to be affecting emotion perception in music include personality and thinking style. For instance, differences in effects of priming might reflect individual differences in trait anger, as Gridley and Hoff (2007) found higher personality trait anger to be associated with greater likelihood of perceiving anger in the same musical selection by unprimed listeners. In other words, did the journalist's "angry young tenor" remark activate stored schema in listeners whose personalities possessed higher trait anger?

Might differences in the effectiveness of priming reflect individual differences in thinking style, as previous studies have found links between nonlinear tendencies and preferences for abstract art and music (Gridley, 2006; Gordon & Gridley, 2009)? For instance, might abstract thinkers who are not as systematic in their usual order of thought be less inclined to perceive anger in such a complex stimulus as Coltrane's saxophone solo than thinkers who are more concrete and systematic in their usual order of thought?

These questions suggest that listener characteristics provide fertile ground for future investigations into the effectiveness of priming emotion perceptions in music. Social cognition theories of priming phenomena may complement the long tradition of research on the psychology of music, and personality trait research can complement our understanding of both social cognition and music perception.

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Appendix A

Perception of Emotion Survey

Circle the numbers that best indicate your perception of emotion in the saxophone solo you heard on the recording.

Happy	1	2	3	4	5	6	7	Sad
Friendly	1	2	3	4	5	6	7	Angry
Tense	1	2	3	4	5	6	7	Relaxed
Enthusiastic	1	2	3	4	5	6	7	Uninvolved
Lively	1	2	3	4	5	6	7	Not lively

Appendix B

Primed Cover Sheet

You are going to hear a recording of a concert at which a journalist reviewed the music by writing that the tenor saxophone soloist was an “angry young tenor.” Please don’t go to the next page until you have heard the recording.

Appendix C

Unprimed Cover Sheet

You are going to hear a recording of a concert at which a tenor saxophonist was the soloist. Please don’t go to the next page until you have heard the recording.